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An
Inaugural Essay
on
Rheumatism,
submitted
To the Provost and Medical Faculty
of
The University of Pennsylvania,
for
The degree of M. D.
by
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of
Virginia.

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Rheumatism.

Rheumatism is defined by Doctor Cullen, a disease produced by an external and evident cause, accompanied with pyrexia and pain of the joints, following the course of the muscles. He divides it into acute and chronic. The former known by pain and pyrexia, the latter by coldness and rigidity of the joints. Doctor Chapman thinks it would be better to divide it into Tonic and atonic. The ancients were in the habit of calling all inflammatory affections of the joints arthritic, which certainly was very incorrect, as those affections were easily distinguished from each other by proper investigation. Ballonius is the first author that treated of this disease seperately, his work appeared in 1642. Before him it was treated in the same manner as gout, which disease is certainly very different from Rheumatism. The former is always of gastric origin, while in the latter the Stomach is only secondarily affected. Gout likewise attacks the small joints, and Rheumatism the large ones, such as the shoulder,

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elbow and knee, very often it attacks the ankles and wrists. Those individuals that are liable to gout, are those that lead an indolent and luxurious life, particularly the rich, while the poor that labour and expose themselves to the vicissitudes of the weather, are the subjects of Rheumatism. This disease occurs oftener in cold than in warm climates, and in the Spring and Autumn than at any other season of the year. The cause of its frequent appearance in those seasons is, that the transitions from heat to cold are more frequent and sudden than in winter and summer; sometimes, though rarely, it makes its appearance in summer, the reason of which is the vicissitudes from heat to cold, are very sudden. Rheumatism seldom attacks young people, the usual period of its appearance is from the age of puberty to that of thirty five. Doctor Caldwell says that he has seen it in the very young, and in people far advanced in years. Doctor Chapman has seen it attack very young people, and the symptoms were the same with Hydrocephalus. This disease sometimes attacks but one part of the body, when it attacks

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more than one part, it comes on with a chill, succeeded immediately by other symptoms of pyrexia, such as a frequent, full and hard pulse; sometimes the pyrexia precedes the pain, this is not often the case says Dr. Caldwell. When no pyrexia is present the pain is confined to one joint, but when there is much pyrexia it effects many joints at the same time, metastasing from one joint, abating in one, and becoming more violent in the other. The fever attending this disease has considerable exacerbation in the evening, and becomes more violent during the night, in consequence of the body being wrapped up more closely; a joint after being affected for sometime, becomes red, swelled and painful to the touch; sometimes as soon as the swelling is produced the pain is alleviated, this is not invariably the case. In the commencement the urine is high coloured without depositing any sediment, but as the disease advances, and as the pyrexia has more considerable remissions the urine then deposits a lateritious sediment, this is not critical as the disease

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Seat. The fibrous textures of the body may be defined the true seat of Rheumatism, though the tendinous structure is the part most commonly affected, very often the ligaments subservient to the joints are affected; the bursae mucosae are more liable to it, than the ligaments says Scudamore. Doctor Carmichael Smith, who wrote a dissertation on inflammation says that, that Rheumatism is an inflammation of the muscular fibres. Scudamore says that this definition is too limited if not erroneous, for if they were inflamed, there would be a considerable degree of pain and swelling in them, which is never seen, but is always to be discovered in the tendon and bursal structure: It would sometimes appear from the deep seated pain that the patient complains of, that it was seated in the periosteum; we sometimes meet with it in the nervous structure, the nervosa ischias is a true excample of it. The serous membranes are likewise attacked with Rheumatism; Scudamore says, he has seen

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it attack the dura mater and its contiguous membranes. David Dundas mentions, that he has seen seven cases were it attacked the heart, all of which proved fatal but one, which was owing to a milk, and vegitable diet. Upon dissection the heart of all were enlarged. Doctor Chapman observed in his lectures, that he had seen it attack the cutis, lungs, stomach and kidneys.

Symptoms. The symptoms of acute Rheumatism are very uniform, they are nearly the same as those of common inflammation; the attack is ushered in by cold chills, with successive flushings of the face, a partial heat, aversion to food, general lassitude of the whole body, with a depression of spirits. The local evidences or symptoms by which we distinguish the disease, comes on in about twenty four hours afterwards; in the first attack the lower limbs are chosen as the seat of the complaint, particularly the knees. There is a great determination of blood to the joints which makes them appear livid, sometimes the inflam-

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mation appears only in patches, the joint is generally swollen with much pain, the pain is said to be similar to that produced by the gnawing of a dog. After this a sympathetic fever arises of the inflammatory type, denoted by a hard and frequent pulse, great heat of the surface, dark encrusted tongue, constipated state of the bowels, excessive thirst, pain in the head, with a tendency to delirium. In the course of the disease irregular pyrexia is joined with irregular perspiration, this is supposed to be an effort of nature to afford relief, but it is seldom copious enough to remove pain or prove critical.

Causes. An hereditary structure may be defined as a predisposing cause of Rheumatism. It is obvious that this inference can only be drawn from general reasoning, and not from demonstration; we meet with instances in which there is a strong predisposition to the disease, in the same family. Perhaps a similarity of habits as to clothing, temperament and exposure may favour the position advanced. Age: The young are exempt-

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both from acute and chronic Rheumatism, except in a few instances; any thing that debilitates the tendinous, ligamentous, or nervous structure, predisposes to Rheumatism; a continued fever by the debility it produces, often lays the foundation; strains and contusions, likewise produce partial Rheumatism, either the acute or chronic, but oftener the latter. Sex: Either sex is indiscriminately liable to this disease, but from a number of comparisons drawn, the male is more liable to it, from their being more exposed to cold and damp weather.

Exciting Causes.

Cold applied to the body either through the medium of a damp cold air, alone, or both combined, appears to be the only exciting cause of Rheumatism.

Treatment: In the treatment of acute Rheumatism, the remedy that first calls our attention is Venesection, which cannot be substituted, and if not premised all other medicines avail nothing to the patient. Sydenham mentions in his essay on Rheumatism,

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that venesection is the principal remedy, his reason for saying so, is from the sizy appearance that the blood presents after venesection. Sir John Pringle in his treatise on the diseases of the army, mentions the frequency of acute Rheumatism, and the very great advantage that he derived from copious and repeated bleedings. He says, that it is almost impossible to obtain a cure without the loss of a great quantity of blood, for he observes that the patients attacked with Rheumatism are generally of a plethoric habit, and bear bleeding better in this disease than any other. Doctor Cullen observes, on the practice of physic, that bleeding is the principal remedy, which should be copious, and repeated in proportion to the frequency, fulness and hardness of the pulse. He however observes, that some caution is to be observed, for copious and repeated bleedings sometimes produce chronic Rheumatism. But Doctor Caldwell in his annotations on Cullen's first lines, remarks that it is oftener produced by a deficiency than an excess of

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venesection. The opinion of the latter is no doubt cor-
rect. Emetics have been highly recommended by some
Physicians, especially by Doctor Haygarth, who was
of the opinion that in the commencement of Acute
Rheumatism, the cure should be commenced by clean-
sing the Alimentary canal with Tartarised antimony,
afterwards he administered Peruvian bark with
unrivalled success. It is the opinion of Doctor Chapman,
that emetics are only serviceable where the disease is
connected with intermittent fever, or when the stomach
is in a depraved condition. As to bark, Doctor Chapman
thinks that it may be useful under proper limita-
tions, but prefers administering it in the chronic
form of the disease. Scudamore observes, that when
given as Haygarth recommends, it invariably proves
injurious by producing congestion in the alimentary
canal, but may be useful where arterial action is
subdued, or when there is some remission in the
disease. Cathartics, are of infinite service in this
affection. The mode of diminishing arterial action,

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by the way of the alimentary canal is very perspicuous in this, as well as in all inflammatory affections, by diminishing arterial action, subduing inflammation, and exciting the absorbents to an increased action. The cathartics administered, should be calomel and jalap; Doctor Chapman prefers them to all others. Diaphoretics, if administered in the early stage of the disease, before arterial action is subdued, will always prove injurious by increasing excitement. But after there has been necessary depletion, they are of infinite advantage, by determining to the surface and lessening the action of the system. It is best to commence with the mild diaphoretics, such as the nitrous powders, afterwards with the more stimulating as Dovers powder, Eupatorium perfoliatum, Asclepias decumbens, the vapour bath may likewise be used. Diuretics, the Chimaphilla umbellata may be used with considerable advantage, when given after arterial action is diminished. Opium has been very highly recommended by some Physicians, they say

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that it cuts short the disease; Doctor Chapman says, the only case in which it is applicable is in weak and irritable habits, here he observes, it acts with considerable advantage, but in patients of a plethoric and robust constitution, it always proves injurious and should not be given. After resorting to the preceding articles, we may with great propriety as well as a great prospect, of success, recur to mercury in order to produce a ptyalism to be effectual, it must be continued for some time. Local Remedies: In most cases there is much pain and inflamation of the joints, which are to be relieved by applications directed to the parts; some Physicians recommend ice to be applied to the part. This practice, Doctor Chapman thinks incorrect; We should apply cups and leeches to the joint, they are very effectual by diminishing the pain and inflammation, after the application of the former remedies; blisters should be applied, they are very useful by the evacuation they produce. A very excellent application consists of one part,

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camphorated mixture and two parts of Alcohol. A flannel roller has been highly recommended by some Physicians, particularly by Doctor Balfour he likewise recommends percussion. Doctor Chapman thinks this incorrect, and that no utility would arise from it; the flannel bandage should be tightly bound around the part, the manner that it acts is by supporting the joint, and preventing the free motion of the muscles. Rheumatism sometimes attacks the internal parts, when it does the treatment should consist in depleting at the commencement, afterwards of diaphoretics. when it attacks the intestines, the symptoms are the same as in dysentary. Doctor Chapman mentioned in his lectures, that he had seen several cases, where it attacked the cutis. His treatment consisted of diaphoretics, such as Laudanum, Dover's powders, warm bath with saline purges; different parts of the body are sometimes affected with this disease, which have had names applied by authors, according to the part that was affected. It was the

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custom of the ancient physicians, to apply different names to every joint. The modern physicians have not become proselytes, they have different names only for the muscles and ligaments of the hip joint, and likewise when it attacks the muscles contiguous to the lumbar vertebra, the latter is known by the name of lumbago, the former by sciatica or ischias.
Lumbago: The pain is very acute, shooting down the sacrum, and comes on sometimes very suddenly.
Treatment: Blood should be drawn from the general circulation, and likewise topically by the application of cups and leeches; vesicating applications are very serviceable, a very useful application consists of one table spoonful of cayenne pepper and two of brandy. This disease is said to have been cured by a mustard seed plaster to the feet.
Sciatica: This is a rheumatic affection of the muscles, tendons, and ligaments, contiguous to the hip. The symptoms are great pain in the lumbar region and inflamation of the joint, very often

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Treatment: In a recent case of sciatica, when there is great pain and inflamation, we must apply cups and leeches, and likewise draw blood from the general circulation; vesecating applications are equally serviceable in this as in the former affection. Indeed the treatment is the same, calomel purges are of very great utility in this disease, when it partakes of the chronic form, chronic medicines must be resorted to, particularly stimulating applications, such as cayenne pepper and brandy, Sinapisms ammonia, Camphor, brine, Electricity, vapour bath, tar combined with oil. The reason why stimulating applications are so useful in this form of the disease, is by diminishing atony, and restoring proper action to the joint. Sydamore observes, in his essay on Rheumatism, that he has known very great advantage derived from cupping in sciatica. He says, that it is the common practice among the Physicians of

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Bath to assist to this remedy. Regimen, we should enjoin on our patients, articles of the lighest and most digestible nature. They should live principally on tea, gruel, sub acid fruits as oranges. Boerhave we are told, when he labored under the most exquisite tortures of acute rheumatism, supported himself twelve days on milk whey. The return to animal food, should be very gradual, for when there is the least excitement remaining, a small quantity of animal food may produce a relapse. Scudamore says, that he has seen it produced by a meal of chicken. Convalescence: The use of bark, conjoined with any of the mineral acids, particularly the aromatic sulphuric is highly essential in a state of convalescence. The stiffness and pain of the joints, which succeed acute Rheumatism, is to be removed by friction and exercise. Scudamore mentions in his essay on rheumatism, that when the weather would permit, he has directed

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his patients to walk several miles in the day; from this he says the most beneficial results succeeded. Prophylactic treatment: When we reflect on the causes that excite this disease, and that accidental or constitutional relaxation of a part, or the whole body is the most frequent state of predisposition. It is evident that those who are subject to this disease, should avoid vicissitudes of temparature, should never suffer their systems to be relaxed by close confinement in their chambers. In nothing is better calculated to produce a relapse, than leaving a heated room, and exposing themselves to a cold or damp atmosphere; a medium should invariably be observed in the Prophylaxis, when the atmosphere is pure and dry, the patients may exercise themselves by walking or riding, the former is preferable greatly to the latter, it should not be carried so far as to debilitate the system. The body should be well protected against the

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vicissitudes of temparature, it should be closely invested with flannel, the feet should likewise be well covered and the patients should avoid getting them wet, for no part of the system affords a more convenient inlet for disease. Intemperance in eating and drinking should be avoided, as they tend greatly to debilitate the constitution, and lay the foundation for chronic rheumatism which is very difficult to manage, and proves a source of great pain and inquietude to the patient.